

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

I. Introduction

In the specification, paragraphs have been amended on pages 6, 10, 15, 21 and 22 according to the Examiner's helpful suggestions.

Claims 1-38 are requested to be cancelled. Claims 42-60 are being added. After amending the claims as set forth above, claims 39-60 are now pending in this application. Support for new claims may be found in original claims 1-38 and on pages 10-11 and 15-19 of the specification, such as page 10, third full paragraph and page 19, first paragraph, and original claims 5, 7, 8, 10, 11, 20 and 23. No new matter was added.

II. The Objections Should Be Withdrawn

The specification and claims 1, 8, 20, 23 and 29-32 were objected to. In response, paragraphs have been amended on pages 6, 10, 15, 21 and 22 of the specification according to the Examiner's helpful suggestions to overcome the objection. Claims 1-38 have been cancelled thus rendering the claim objections moot.

III. The Rejections Should Be Withdrawn

A. Majumdar

Claims 1, 4-8, 10-16, 20-23, 26-30 and 32-38 have been rejected as being anticipated by Majumdar (US Patent 6,882,051) and/or as being obvious over Majumdar in view of secondary references. Claims 1-38 have been cancelled rendering the rejections moot. Applicants note that claims 39-41 which are currently pending have not been rejected over Majumdar. Majumdar teaches semiconductor nanowire based devices, but does not teach

metal thin film piezoresistors on a cantilever, as recited in claims 39 and 50. Thus, applicants submit that the rejections over Majumdar are not applicable to independent claims 39 and 50 and to claims 40-49 and 51-60 which depend from claims 39 and 50.

B. Tortonese

Claims 39-41 have been rejected as being anticipated by Tortonese (Appl. Phys. Lett.) or as being obvious over Tortonese in view of a secondary reference. These rejections are respectfully traversed.

Independent claims 39 and 50 recite a metal thin film piezoresistor. In contrast, Tortonese teaches a doped silicon region (i.e., a semiconductor region) piezoresistor. The metal film of Tortonese is not a piezoresistor, but acts as a contact line and bonding pad.

This is clearly shown in Figures 2(a) and 2(b) of Tortonese. The piezoresistor marked in the top view of Figure 2(a) of Tortonese corresponds to the doped silicon region in the side cross sectional view of Figure 2(b). The metal lines and bonding pads in the top view of Figure 2(a) of Tortonese corresponds to the “metal” in Figure 2(b). Thus, the “metal” in Figure 2(b) of Tortonese is a line/bonding pad, not a piezoresistor. This is explained in the graphic below:

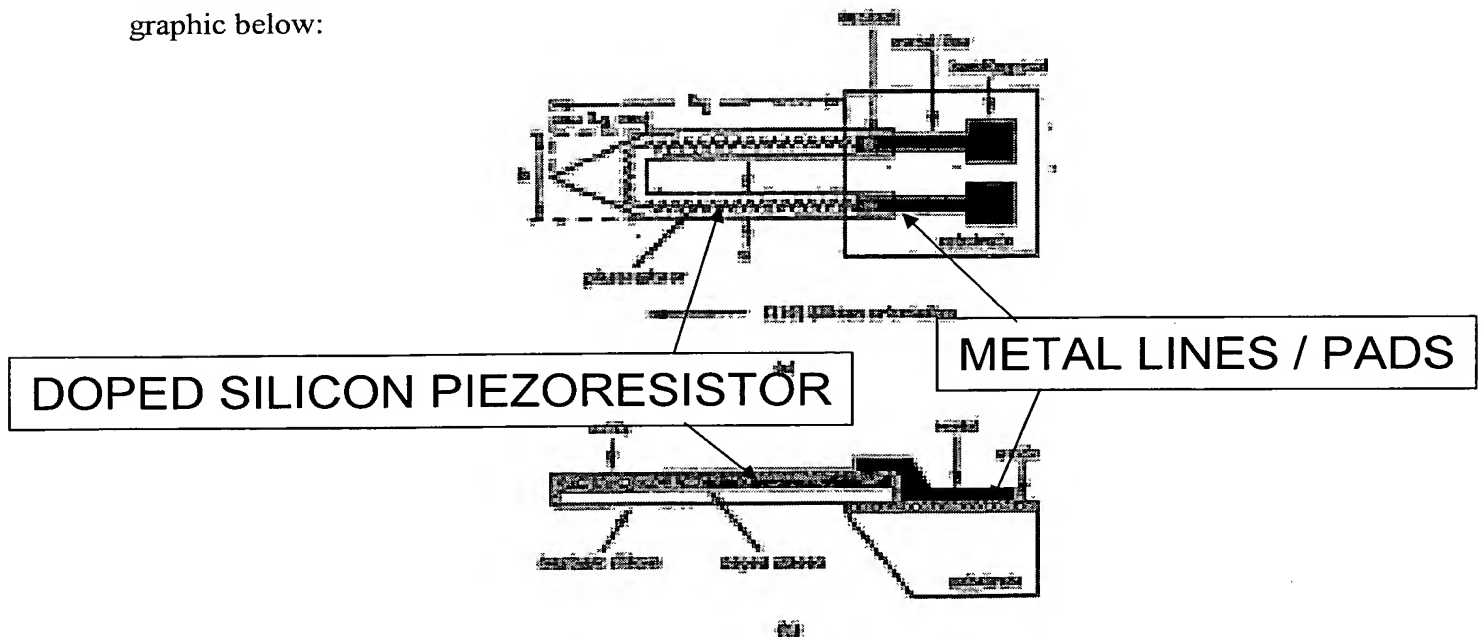


FIG. 2. Schematic drawing of a piezoresistive cantilever. Plan view (a) and cross section (b).

Thus, Tortonese does not anticipate independent claims 39 and 50 because Tortonese does not teach or suggest a metal thin film piezoresistor which is recited in claims 39 and 50. The secondary reference was applied only against dependent claim 41. Thus, applicants respectfully request a withdrawal of the rejections based on Tortonese.

IV. Conclusion

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. § 1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date

3/27/06

By



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